Why go Organic?

- What is a pesticide?
- Doesn't the law protect us?
- What are the health risks?
- How are children uniquely vulnerable?
- What are the environmental risks?
- What can we do to reduce and eliminate pesticide exposure in our lives?

MPAC's *Awareness through Education* campaign

- Partnerships with Town Departments
- Partnership with League of Women Voters
- Educational conferences for local landscapers
- Outreach to schools, garden clubs, homeowners & other communities
- ***"Living Lawn"*** Organic Demonstration Project
- Homeowner classes on organic lawn care

Federal law defines pesticides as any of the following:

- Herbicides (Weed and Feed)
- Pre-emergents
- Insecticides
- Fungicides
- Miticides
- Anti-microbials
- Rodenticides
- Algicides
- Repellents
- Or any chemical designed to kill, repel or mitigate a pest

No Pesticide Can be Considered Safe

Federal law *prohibits* claims as to the safety of a pesticide or its ingredients, including:

- **"safe when used as directed"**
- **"non-poisonous"**
- **"non-toxic to humans and pets"**

What are the health risks?

- **Many pesticides are known carcinogens, mutagens, neurotoxins, endocrine/hormone disruptors and teratogens (birth defects)**
- **Damage to reproductive, nervous, immune, endocrine, and metabolic systems**
- **Exposure in humans is widespread and involuntary**
- **Children are particularly vulnerable**

Physicians and Scientists are speaking out

www.childenvironment.org

What can we do to reduce and eliminate pesticide exposure?

- Awareness through education
- Personal choice/Market influence
- Advocacy in your community
- Pesticides as a public health issue
- Work for protective legislation

Town of Marblehead
Board of Health

Adopts
Organic Pest
Management Policy
for all
Town-owned Land
(including
Athletic/Playing Fields)

May 2001

Pesticide Use
The Unseen Damage

- Largest contributor to the fostering of turf diseases by soil borne pathogens
- Pesticides are Biocides
- Bio means life
- Cide means to kill
- Purpose of pesticides is to kill biological life that causes injury or damage to cultivated plant material

Soil Environment

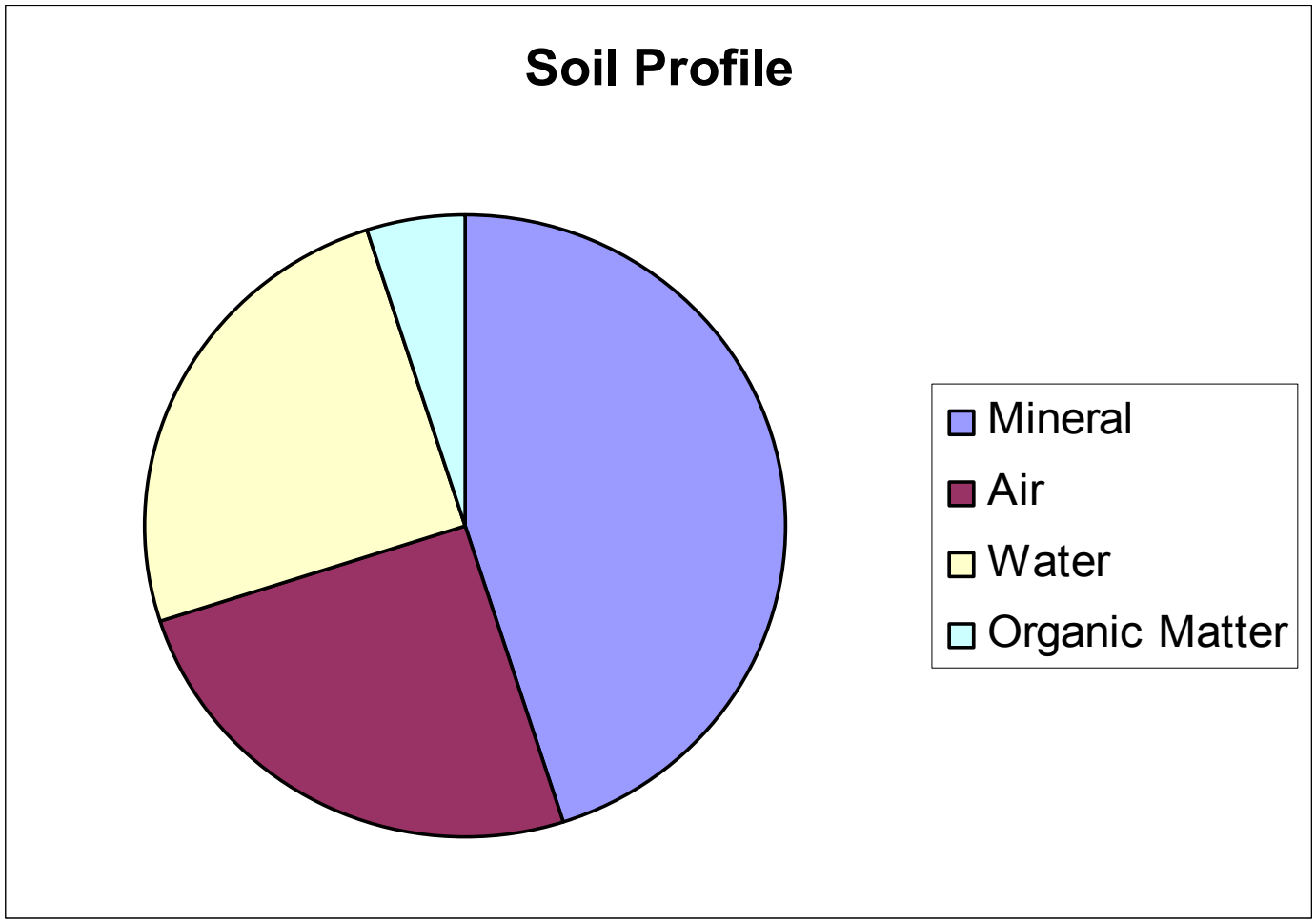
- Thousands of different organisms
- Competing for survival, chance to reproduce
- If soil is poor or has little food or other resources or has been damaged by a chemical application
- All organisms can’t survive

- If pathogenic organisms survive and beneficial population is reduced
- Soil is “diseased”
- Most soil resources linked with OM
- % of OM in soil is small, but is responsible for the largest amount of benefits
- Typical soil breakdown 40-45% mineral, 25% air, 25% water, 5-10% OM

Turfgrass and Disease

- Turf resistance lowered by cultural practices that cause stress within the plant
- They are:
- Improper mowing (short blade length reduced plant's ability to photosynthesize)
- Too much lime
- Improper fertilization
- The use of pesticides

Typical Non-Forest Soil Profile



Enrich the Soil

- The more we can enrich the soil and raise OM %
- Begin to create a soil that has ability to fight pathogens
- As the optimum soil profile is created
- Beneficials in the soil out number pathogens and disease can be suppressed

Compost, The Benefits

- Incidence of disease is reduced when soil is enriched with OM in the form of aged compost
- Type and number of organisms in compost compete with pathogens and suppress them
- When you encourage development of OM and beneficial soil microorganisms, you create soil that has ability lower the incidence of disease

- Organic approach not a “Quick Fix”
- Some acceptable level of weed tolerance
- If you are on a chemical program what should you expect
- When proper biology and cultural practices begin to fall into place you will see the change

Awareness and Cooperation of Youth Sports Groups

Work Through the Politics—Not Everyone is Necessarily On Board—Avoid Public Confrontation

Develop Sound Chemical-Free Field Management Plan

Back the Cultural Plan with Detailed Soil Biology and Proper Soil Profiles

Approach Fin-Com with Sound Biology and Good Numbers-- Cost Reductions at Five Year Point

Perform Work In-House -- Good Luck –It Will Fall into Place and Be Accepted